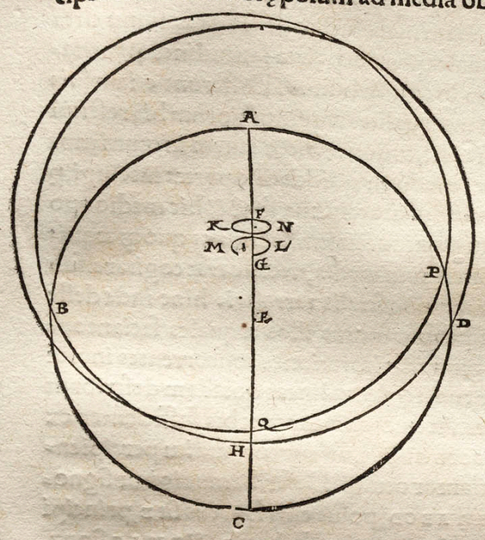
descriptus in eo circulus æquinoctialis per eadē BD segmenta trāsibit, nempe per polos AFEC circuli: sed angulos obliquitatis faciet maiores pro ratione FI circūferētiæ. Ab hoc sumpto principio transiturū terræ polum ad mediā obliquitatē in I: alter superueniēs motus nō sinit recta incedere per FI, sed per ambitum ac extremam in consequentia latitudinem, quæ sit in K deducit ipsum. In q̄ loco descripti æquinoctialis apparentis OPQ, sectio nō erit in B, sed post ipsam in O, & pro tanto minuitur præcessio æquinoctiorū, quantum fuerit BO. Hinc conuersus polus, & in præcedentia tendens, excipitur à concurrētibus simul utrisq; motibus in I medio, & æqnoctialis apparēs p̄ omnia unitur æquali siue medio, ac eo ptransiens polus terræ transmigrat in prcedentes partes, & separat æquinoctialem apparentē à medio, augetq; præcessionem æquinoctiorū usq; in alterū L limitē. Inde reuertēs aufert q̄d modo adiecerat æquinoctijs, donec in G puncto cōstitutus minimā efficiat obliquitatē in eadē B sectiōe, ubi rursus æquinoctiorū solsticiorūq; motus tardissimus apparebit eo ferè modo quo in F. Quo tempore constat inæqualitatē eorū reuolutionē suā peregisse, quando à medio utrunq; pertransierit extremorū: motus uero obliquitatis à maxima declinatione ad minimam, dimidium duntaxat circuitum. Exinde pergens polus consequentia repetit ad extremum usq; limitem in M, ac denuo reuersus unitur in medio, rursumq; uergens in præcedentia N limitem emensus concludit



cludit tandem quā diximus intortā lineam FKILGMINF, itaq; manifestum est, quōd in una reuersione obliquitatis bis præcedentium bisq; sequentium limitem terræ polus attingit.

Quomodo motus reciprocus siue librationis ex circularibus constet. Cap. IIII.

QVod igitur iste motus apparentijs consentiat ammodo declarabimus. Interim uero quæret aliquis, quo nam modo possit illarum librationum æqualitas intelligi, cum à principio dictum sit, motum ęqle stem æqualē esse, uel ex æqualibus ac circularibus cōpositum. Hic aūt utrobiq; duo motus in uno apparēt sub utrisq; terminis, q̄bus necesse est cessationē interuenire. Fatebimur quidem geminatos esse, at ex ęqualibus hoc modo demonstrandē. Sit recta linea AB, quę quadrifariā secetur in CDE signis, & in D describātur circuli homocentri, ac in eodē plano ADB, & CDE, & in circūferentia interioris circuli assumat utcūq; F signū, & in ipso F cētro, interuallo uero FD circulus describatur GHD, qui secet AB rectā lineā in H signo, & agat dimetiēs DFG. Ostendendū est, q̄ geminis motibus circulorū GHD & CFE cōcurrētibus inuicē H mobile p̄ eandē rectam lineā AB hincinde reciprocādo repat. Quod erit, si intelligat H moueri in diuersam partē, & duplo magis ipso F. Quoniā idē angulus, q̄ sub CDF in cētro circuli CFE & circūferētia ipsius GHD cōsistēs cōprehēdit utrāq; circūferentiā circulorū ęq̄liū GH duplā ipsi FC, posito q̄ aliquādo in cōiunctiōe rectarū linearū ACD & DFG mobile H fuerit in G cōgruente cū A, & F in C. Nūc aūt in dextras ptes p̄ FC motū est centrū F, & ipsum H p̄ GH circumferentiā in sinistras duplo maiores ipsi CF.